

OPEN LETTERS.

Relation of moisture to plant diseases.

The object of this note is that of inquiry, especially as to the value of the following opinions and observations:

It is the prevailing opinion that wet weather is favorable to the growth of parasitic fungi, and this is no doubt true in some cases at least. The spring of 1882 was a rainy one in Illinois, and a large number of *Peronosporæ* were collected. This year a large amount of rain has fallen in New England during July and August, and *Uredinæ* and *Erysipheæ* are less abundant than in dryer seasons. In dry autumns like that of 1886 in Central Illinois, fungi of these two groups are exceedingly plentiful. Water plants have few parasites, and plants of wet places less than those growing upon common soil.

A. B. SEYMOUR.

Cambridge, Mass.

Bees mutilating flowers.

In the May number of the GAZETTE, in a note on *Mertensia*, Dr. J. Schneck suggests that the habits of bees to mutilate the corollas of flowers, in order to get at the honey, may be general. Appended are some notes on the subject.

Aquilegia vulgaris L. is mutilated by humblebees. The insects puncture the spur a little above the bulb at the end.

Lonicera parviflora Lam. is punctured just above the calyx.

Weigela (*Diervilla*, cult. specs.), punctured by humblebees. Honey bees enter the tube.

Orchis spectabilis L. Slits made in lower end of spur.

Aquilegia Canadensis L. Spurs punctured just above bulb.

Mertensia Virginica DC. In May number of BOTANICAL GAZETTE Mr. Schneck mentions *Mertensia* as being mutilated. A few days after seeing the note I happened to find a patch of that plant and watched the bees at work. They generally punctured the tube, but occasionally a bee would light on the mouth of a tube, insert his head, and then by a sudden movement of the wings cause the honey to drop down upon his head and then suck it up through his proboscis.

Lonicera grata Ait. Reported by Nathan Banks from Roslyn. L. I.

Tropæolum majus. Reported by Nathan Banks. "Often 2-5 punctures in the same spur."

Impatiens fulva Nutt. Sometimes the end of the spur is bitten off.

Linaria vulgaris Mill. Slits are made in the spur.

Poughkeepsie, N. Y.

GILBERT VAN INGEN.

CURRENT LITERATURE.

Revision of North American Linaceæ. By William Trelease. From Trans. St. Louis Acad. Sci., Vol. v., no. 1, pp. 1-20, with 2 plates.

Twenty-one species are described, the two plates representing the fruit of the genus and the petals and filaments of the section *Hesperolinon*. *L. perenne* of American botanists becomes *L. Lewisii* Pursh. *L. Floridanum* is brought to specific rank from a variety of *L. Virginianum*.